Amendment submitted in response
to Office Action mailed 06/05/2005
U.S. Pat App. No. 09/654,718
October 31, 2005
Page 2

Amendments to the Claims

1.   (currently amended): A method for scheduling communication between a plurality of

components in an integrated circuit (IC) coupled to at least one communication medium

and at least one scheduling processor comprising the steps of:

initiating a transfer by said at least one scheduling processor sending a transfer command

to a first IC component;

transferring data from said first IC component to a second IC component over said at

least one communication medium;

said second IC component notifying a third IC component upon completion of said

transferring data step;

wherein said transfer command to said first IC component identifies said second and said

third IC components.

2.   (currently amended): The method of claim 1 further comprising the steps of:

initiating another transfer by said at least one scheduling processor sending a transfer

command to a fourth IC component;

transferring data from said fourth IC component to a fifth IC component;

said fifth IC component notifying a sixth IC component upon completion of said

transferring data step;

wherein said transfer command to said fourth IC component identifies said fifth and said

sixth IC components.

3.   (previously presented): The method of claim 2 wherein said components include a

microprocessor and said method further comprises the step of:

said microprocessor executing program code.

Amendment submitted in response
to Office Action mailed 06/05/2005
U.S. Pat App. No. 09/654,718
October 31, 2005
Page 3

4.   (currently amended): A method of controlling system operation between a plurality of
        components in <u>an integrated circuit (IC)</u> coupled to at least one communication medium
        and at least one scheduler comprising the steps of:
        said scheduler sending a first command to a first <u>IC</u> component to transfer data over said
<u>at least one</u> communication medium;
        said <u>at least one</u> scheduler sending a second command to a second <u>IC</u> component to
transfer data over said <u>at least one</u> communication medium;
        notifying said second <u>IC</u> component upon completion of said first command;
        initiating execution of said second command upon completion of said notifying step.

5.   (previously presented): The method of claim 4 wherein said sending a first command and
        said sending a second command step can occur in any order.

6.   (currently amended): The method of claim 5 wherein said method further comprises the
        step of:
        said <u>at least one</u> scheduler deciding an order to send said first command and said second
command and creating a chained sequence of transfers.

7.   (currently amended): The method of claim 6 wherein said <u>at least one</u> scheduler includes
        a microprocessor and said method further comprises the step of:
        said microprocessor executing a program.

8.   (currently amended): A method of controlling system operation between a plurality of
        components <u>in an integrated circuit (IC)</u> coupled to at least one communication medium
        and at least one scheduler comprising the steps of:
        receiving a first command from said scheduler by a first <u>IC</u> component to transfer data
over said <u>at least one</u> communication medium;
        receiving a second command from said scheduler by a second <u>IC</u> component to transfer
data over said <u>at least one</u> communication medium;

Amendment submitted in response
to Office Action mailed 06/05/2005
U.S. Pat App. No. 09/654,718
October 31, 2005
Page 4

performing said first command;

notifying said second <u>IC</u> component upon completion of said performing step; and

initiating said second command upon completion of said notifying step.

9. (previously presented): The method of claim 8 wherein said receiving a first command, said receiving a second command, and said performing steps can occur in any order.

10. (currently amended): The method of claim 9 further comprising the steps of:

sending said first command by said <u>at least one</u> scheduler; and

sending said second command by said <u>at least one</u> scheduler

11. (currently amended): The method of claim 10 wherein said <u>at least one</u> scheduler includes a microprocessor and said method further comprises the step of:

said microprocessor executing a program.

12. (currently amended): A method of controlling a system including a plurality of components <u>in an integrated circuit (IC)</u> coupled to at least one communication medium and at least one scheduler comprising the steps of:

said <u>at least one</u> scheduler receiving transfer requests from requesting <u>IC</u> components;

said <u>at least one</u> scheduler constructing a transfer command for each of said transfer requests;

said <u>at least one</u> scheduler sending said transfer commands to said requesting <u>IC</u> components;

wherein said transfer command further comprises;

(a) a destination address identifying a destination component; and

(b) a notification address identifying an acknowledge component.

13. (currently amended): The method of claim 12 wherein said <u>at least one</u> scheduler includes a microprocessor and said method further comprises the step of:

Amendment submitted in response
to Office Action mailed 06/05/2005
U.S. Pat App. No. 09/654,718
October 31, 2005
Page 5

said microprocessor executing program code.

14-25. Cancelled

26. (currently amended): The method of claim 2 further comprising the steps of:

said at least one scheduling processor deciding an order to perform said transfers; and

creating a chained sequence of said transfers.

27. (currently amended): The method of claim 3 further comprising the steps of:

said at least one scheduling processor deciding an order to perform said transfers; and

creating a chained sequence of said transfers.

28. (currently amended): The method of claim 12 further comprising the steps of:

said at least one scheduling processor deciding an order to perform said transfers; and

creating a chained sequence of said transfers.

29. (previously presented): The method of claim 1 wherein:

said transfer command is communicated over a first medium; and

said transferring step is performed over a second medium.

30. (previously presented): The method of claim 4 wherein:

said step of sending a first command is communicated over a first medium; and

said step of sending a second command is communicated over a second medium.

31. (currently amended): The method of claim 4 further comprising the step of:

transferring data from said first IC component over a first medium; and

wherein said step of sending a first command is communicated over a second medium.

32. (previously presented): The method of claim 6 wherein:

Amendment submitted in response
to Office Action mailed 06/05/2005
U.S. Pat App. No. 09/654,718
October 31, 2005
Page 6

said step of sending a first command is communicated over a first medium; and

said step of sending a second command is communicated over a second medium.

33.   (currently amended): The method of claim 6 further comprising the step of:

transferring data from said first <u>IC</u> component over a first medium; and

wherein said step of sending a first command is communicated over a second medium.

34.   (previously presented): The method of claim 8 wherein:

said first command is communicated over a first medium; and

said step of performing said first command is performed over a second medium.

35.   (previously presented): The method of claim 10 wherein:

said first command is communicated over a first medium; and

said step of performing said first command is performed over a second medium.

36.   (currently amended): The method of claim 12 further comprising the step of:

transferring data from said requesting <u>IC</u> components over a first medium; and

wherein said step of sending said transfer commands is performed over a second medium.

37.   (currently amended): The method of claim 12 further comprising the step of:

transferring data from said requesting <u>IC</u> components over a first medium; and

wherein said step of sending said transfer commands is performed over a plurality of
second mediums.